

§ 160.047-3

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(b) Model AF-1, adult, fibrous glass (for persons weighing more than 90 pounds);

(c) Model CKM-1, child medium, kapok (for children weighing from 50 to 90 pounds);

(d) Model CFM-1, child medium, fibrous glass (for children weighing from 50 to 90 pounds);

(e) Model CKS-1, child small, kapok (for children weighing less than 50 pounds); or

(f) Model CFS-1, child small, fibrous glass (for children weighing less than 50 pounds).

[CGD 72-163R, 38 FR 8119, Mar. 23, 1973]

§ 160.047-3 Materials.

(a) *General.* All components used in the construction of buoyant vests must meet the applicable requirements of subpart 164.019 of this chapter. The requirements for materials specified in this section are minimum requirements, and consideration will be given to the use of alternate materials in lieu of those specified. Detailed technical data and samples of all proposed alternate materials must be submitted for approval before those materials are incorporated in the finished product.

(b) *Kapok.* The kapok shall be all new material complying with Subpart 164.003 of this subchapter and shall be properly processed.

(c) *Fibrous glass.* The fibrous glass shall comply with the requirements of specification MIL-B-2766.

(d) *Envelope.* The buoyant vest envelope, or cover, shall be made from 39", 2.85 cotton jeans cloth, with a thread count of approximately 96×64. The finished goods shall weigh not less than 4.2 ounces per square yard, shall have a thread count of not less than 94×60, and shall have a breaking strength of not less than 85 pounds in the warp and 50 pounds in the filling. Other cotton fabrics having a weight and breaking strength not less than the above will be acceptable. There are no restrictions as to color, but the fastness of the color to laundering, water, crocking and light shall be rated "good" when tested in accordance with Federal Test Method Standard No. 191, Methods 5610, 5630, 5650, and 5660.

(e) *Pad covering.* The covering for the buoyant pad inserts shall be flexible

vinyl film not less than 0.006" in thickness meeting the requirements of Federal Specification L-P-375 for Type I or II, class 1, film.

(f) *Tie tapes and body strap loops.* The tie tapes and body strap loops for an adult or child size buoyant vest specified by this subpart must be 3/4-inch cotton webbing meeting the requirements in military specification MIL-T-43566 (Class I) for Type I webbing.

(f-1) *Body straps.* The complete body strap assembly, including hardware, must have a breaking strength of 150 pounds for an adult size and 115 pounds for a child size. The specifications for the webbing are as follows:

(1) For an adult size vest, the webbing must be 1 inch.

(2) For a child size vest, the webbing must be three-fourth inch and meet the requirements of military specification MIL-W-530 for Type IIA webbing.

(f-2) *Reinforcing tape.* The reinforcing tape around the neck of a buoyant vest specified by this subpart must be 3/4-inch cotton tape weighing 0.18 ounce or more per linear yard and having a minimum breaking strength of 120 pounds.

(g) [Reserved]

(h) *Thread.* Each thread must meet the requirements of subpart 164.023 of this chapter. Only one kind of thread may be used in each seam.

[CGFR 65-37, 30 FR 11581, Sept. 10, 1965, as amended by CGD 72-90R, 37 FR 10836, May 31, 1972; CGD 73-130R 39 FR 20684, June 13, 1974; CGD 78-012; 43 FR 27154, June 22, 1978; CGD 82-063b, 48 FR 4782, Feb. 3, 1983; CGD 84-068, 58 FR 29493, May 20, 1993]

§ 160.047-3a Materials—Dee ring and snap hook assemblies and other instruments of closure for buoyant vests.

(a) *Specifications.* Dee ring and snap lock assemblies and other instruments of closure for buoyant vests may have decorative platings in any thickness and must meet the following specifications:

(1) The device must be constructed of inherently corrosion resistant materials. As used in this section the term *inherently corrosion resistant materials* includes, but is not limited to, brass, bronze, and stainless steel.

(2) The size of the opening of the device must be consistent with the webbing which will pass through the opening.

(b) *Testing requirements.* Dee ring and snap hook assemblies and other instruments of closure for buoyant vests must—

(1) Be tested for weathering. The Coast Guard will determine which one or more of the following tests will be used:

(i) Application of a 20 percent sodium-chloride solution spray at a temperature of 95 °F (35 °C) for a period of 240 hours in accordance with the procedures contained in method 811 of the Federal Test Method Standard No. 151.

(ii) Exposure to a carbon-arc weather-ometer for a period of 100 hours.

(iii) Submergence for a period of 100 hours in each of the following:

(a) Leaded gasoline.

(b) Gum turpentine.

(iv) Exposure to a temperature of 0° ±5 °F (−17.6 ±2.775 °C) for 24 hours; and

(2) Within 5 minutes of completion of the weathering test required by paragraph (b)(1) of this section, the assembly must be attached to a support and bear 150 pounds for an adult size and 115 pounds for a child size for 10 minutes at the ambient temperatures without breaking or distorting.

[CGD 73-130R, 39 FR 20684, June 13, 1974]

§ 160.047-4 Construction.

(a) *General.* This specification covers buoyant vests which essentially consist of a vest-cut envelope containing compartments in which are enclosed pads of buoyant material arranged and distributed so as to provide the proper flotation characteristics and buoyancy required to hold the wearer in an upright

backward position with head and face out of water. The buoyant vests are also fitted with tapes, webbing, and hardware to provide for proper adjustment and close and comfortable fit to the bodies of various size wearers.

(b) *Envelope.* The envelope or cover shall be cut to the pattern shown on Dwg. No. 160.047-1, Sheet 1, for adult size, and Sheets 2 and 3 for child sizes, and sewed with seams and stitching as shown on the drawing. Three compartments shall be formed to hold the buoyant pad inserts, two front compartments and one back compartment, and reinforcing strips of the same material as the cover shall be stitched to the inside of the front compartments in way of the strap attachments as shown by the drawings. As alternate construction, the front and/or back cover panels may be made in two pieces, provided that the two pieces are joined by a double stitched seam from the top center of the neck hole to the top of the vest as shown in Section J-J of the drawings.

(c) *Pad inserts—(1) Forming and sealing.* The buoyant pad inserts shall each be formed from two pieces of film cut to the patterns shown by Dwg. No. 160.047-1, Sheet 4, which shall be heat-sealed tight. The heat-sealed pad seams shall show an adhesion of not less than 8 pounds when 1 inch strips cut across and perpendicular to the seams are pulled apart at a rate of separation of the clamping jaws of the test machine of 12 inches per minute.

(2) *Kapok-filled pads for Models AK-1, CKM-1, and CKS-1.* The buoyant pad inserts for Models AK-1, CKM-1, and CKS-1 buoyant vests shall be filled with kapok distributed as provided in Table 160.047-4(c)(2).

TABLE 160.047-4(c)(2)—DISTRIBUTION OF KAPOK IN BUOYANT PAD INSERTS

	Model AK-1 (minimum)	Model CKM-1 (minimum)	Model CKS-1 (minimum)
Front pad (2) (each)	<i>Ounces</i> 5.75	<i>Ounces</i> 3.75	<i>Ounces</i> 2.50
Back pad	4.00	2.50	2.00
Total	15.50	10.00	7.00

(3) *Fibrous glass-filled pads for Models AF-1, CFM-1, and CFS-1.* The buoyant pad inserts for Models AF-1, CFM-1,

and CFS-1 buoyant vests shall be filled with fibrous glass distributed as provided in Table 160.047-4(c)(3).